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SUPERFUND PRELIMINARY CLOSE-OUT REPORT

Waite Park Wells
Waite Park, Minnesota

I. INTRODUCTION

This Preliminary Close-Out Report documents that the United States Environmental Protection Agency (EPA) and Minnesota Pollution Control Agency (MPCA) have completed oversight of all major construction activities for the Waite Park Wells Superfund Site (Site). MPCA staff conducted a pre-final inspection on August 17, 1999, and determined that the Responsible Parties (RPs) have constructed the remedy in accordance with remedial design (RD) plans and specifications. Activities necessary to achieve final site closure are underway.

II. SUMMARY OF SITE CONDITIONS

The Site consists of three individual sites: the City of Waite Park (City) water supply wells, the Electric Machinery (EM) site, and the Burlington Northern Car Shop (BN) site. The City water supply wells are located within the BN site, which is a 200-acre parcel of land in Waite Park. The EM site is located in the city of St. Cloud, and consists of 45 acres adjacent to and north of the BN site. See Figure 1 for a map of the Site.

The Site was proposed for the National Priorities List (NPL) on September 18, 1985, and was listed on June 10, 1986, with a Hazard Ranking Score (HRS) of 32. The BN and EM sites are listed separately on the state of Minnesota's Permanent List of Priorities, each with a HRS score of 38. The Site is currently in the EPA Enforcement Deferral Pilot Project, which gives the MPCA the lead agency responsibility. The MPCA is overseeing cleanup conducted by the RPs.

In December 1984, volatile organic compounds (VOCs) were found in the City's water supply wells. Initial provisions were made for a temporary supply of safe drinking water from nearby St. Cloud businesses. On February 4, 1985, an emergency hookup was created connecting the Waite Park and St. Cloud water systems, in order to supply the City with safe drinking water until the most appropriate long-term water supply alternative could be constructed.

On October 22, 1985, the MPCA issued a Request for Response Action (RFRA) to BN, citing BN as a source of contamination to the City's water wells. On March 25, 1986, and September 26, 1986, the MPCA also issued RFRAs to Brown Boveri & Company Ltd., Cooper Industries, Inc., Dresser Industries, Inc., and Electric Machinery Manufacturing for the adjacent EM site. The RFRAs also cited the EM site as a source of contamination to the City wells. The RFRAs requested both BN and the EM RPs to conduct a Remedial Investigation/Feasibility Study (RI/FS) and implement a RD/Response Action (RA) Plan for a long-term water supply treatment system for the City. The RFRAs also requested BN and the EM RPs to conduct an RI/FS and implement an RD/RA to address the contamination at their respective sites.

REMEDIAL CONSTRUCTION ACTIVITIES

City of Waite Park Wells

A water supply Focused FS for the City was completed by the MPCA, and in September 1986, MPCA staff approved the addition of an air stripper to existing City wells 1 and 3 as the most appropriate long-term water supply response action alternative. Under the RFRA, BN and the EM RPs (Brown Boveri and Cooper Industries) jointly funded and implemented the water supply response action and the City wells were placed back into service in February 1988. This remedy is currently in place, providing an acceptable long-term water supply to the City. The City, Minnesota Department of Health and the MPCA staff regularly monitor the water from the wells before and after treatment to ensure that the deep aquifer treatment system is functioning properly.

Electric Machinery

The EM site Record of Decision (ROD) was issued on January 5, 1989. The remedy in the ROD required installation of ground water extraction wells in the shallow and deep aquifers, a packed tower aeration system for ground water treatment, and discharge of the treated water to the Sauk River under a National Pollutant Discharge Elimination System permit. Remediation of the deep aquifer is being addressed by the City well treatment system. The MPCA completed a Five-Year Review for the EM site on March 30, 1995. The review recommended that the capture zone effectiveness of both the EM site pump-out system and the City well field system be evaluated to determine if the contaminant plume is being adequately captured. In response to the Five-Year Review recommendations, the EM site RPs developed a ground water model, which demonstrated that the EM site and City pump-out/well systems are effective in containing and treating the plume of chlorinated VOCs.

Burlington Northern Car Shops

The BN site ROD was issued on July 14, 1994. This included excavation and treatment by solidification/stabilization of impacted soils in Areas A, C, H and the Paint Shop Building, and construction of an on-site containment cell composed of a liner, leachate collection system and cover system. Ground water and gas monitoring were also included in the ROD.

A total of 41,900 cubic yards of soil contaminated with PCBs, metals and polyaromatic biphenyls were treated and placed in the containment cell, which was closed in 1995 (April 1995 Excavation Documentation Report and the December 1995, Volume I and II Excavation/Treatment Documentation Report). At the time of the ROD, the MPCA thought the majority of the disposal areas were identified, but confirmation testing and other information identified widespread impacted soils, mainly lead contamination, in Areas A, B, C, and H. The MPCA also suspected lead contamination in areas, which were not evaluated. The source of the lead contamination is suspected to be a result of disposal of waste sandblast sands from sandblasting operations conducted on the site.

In the period since the ROD was signed and the remedy implemented, the MPCA advanced initiatives to develop a risk-based approach to decision-making during investigation and remedy selection at Superfund and Voluntary Investigation and Cleanup sites. The MPCA has developed draft guidance for

implementation of this approach presented in the *MPCA August 25, 1997, Draft Guidelines on Guidance on Incorporation of Planned Property Use Into Site Decisions.* Although recreational and industrial planned property use was taken into consideration in setting the original cleanup levels, the risk-based approach takes this concept further by evaluating whether contamination may remain in place as part of a RA. It also uses engineering and institutional controls to ensure that the remedy remains protective of public health and the environment.

In order to address the remaining contamination, the MPCA prepared an Explanation of Significant Differences (ESD), dated August 11, 1998. The ESD presented an Integrated Remedy to address known and potentially impacted soil at the site. Sixty thousand (60,000) cubic yards of impacted soil, exceeding cleanup levels, had been excavated from Areas A, B, C, and H and stockpiled. According to the ESD, this stockpiled soil would be stabilized and hauled to an off-site landfill. Additionally, an evaluation would be conducted in areas not excavated to determine whether contamination may remain in place as part of a RA, with the use of engineering and institutional controls to ensure that the remedy remains protective of public health and the environment. The Integrated Remedy would be developed and implemented on a case-by-case basis in accordance with the needs of all affected parties. As stated above, the MPCA expects that future development activities are likely to encounter areas of lead impacted soil, and the Integrated Remedy will be used in these areas. Any future development activities by private entities will remain protective of human health and the environment.

Confirmation sampling and of the excavated areas and other site sampling showed additional contaminated soil present. In order to allow development to proceed, approximately 81,000 cubic yards of contaminated soil was excavated from Areas A, B, C, and H and stockpiled. In accordance with the ESD, the stockpiled soil was treated/stabilized and hauled to Superior FCR Landfill located in Buffalo, Minnesota for use as daily cover material. This activity was completed in August 1999 and signified the completion of all major construction activities.

Although significant remedial efforts have been undertaken to remove and treat impacted soil, residual impacts remain. Known areas of impacted soil still exist in Areas B and C and are scheduled to be addressed using the ESD approach. Deed restrictions will be necessary in some areas to ensure the remedy remains protective of human health and the environment. Additionally, the RP has developed a plan to sample approximately 60 acres of the site to determine if contamination is present, and will prepare a Response Action Plan if necessary.

A Site-wide ground water monitoring plan was developed and implemented. Several wells exceed cleanup levels for trichloroethene and tetrachloroethene; some of these wells are downgradient of and contaminated by the release from the EM site. In addition, Health Risk Level (HRL) exceedances of trichloroethene and tetrachloroethene are present in the area around monitoring well ERT10S. See Figure 2 for well locations. The levels are decreasing over time and are lower than those detected as a result of the EM site contamination. Since they are within the area of influence of the city water supply wells and the municipal water treatment system is capable of handling these contaminants, no further action will be necessary. Monitoring well MPCA 14S exhibited a concentration exceeding the HRL for Arochlor 1254. Resampling of this well confirmed the presence of Arochlor 1254, but near the HRL. Since the source of the Arochlor 1254 is unknown, the MPCA is requesting additional soil sampling and PCB analysis be conducted in the vicinity of MPCA 14S. If no source is identified, no

further action will be necessary. Ground water monitoring in the containment cell area is on going. For the remainder of the site, no further ground water monitoring activities are necessary and all remaining ground water monitoring wells are to be sealed.

On August 17, 1999, the MPCA conducted a prefinal inspection of the construction that had taken place. In attendance at the prefinal inspection were the following individuals: Brenda Winkler - MPCA; Eric Porcher - MPCA; Sandra Beck – MPCA, Judy McDonough – BNSF; Kurt Geiser – ThermoRetec Inc.

We discussed the following items for the BN site:

- Complete the sweeping of the concrete pad where contaminated sediment was stockpiled.
- Removal of berms around the stockpile area. The berms may stay in place for future excavation activities planned for areas B and C.
- Seeding two former stockpile areas - area H and the area just west of the containment cell. Both areas are on the City's property.
- Development of a Construction Completion Report, complete ground water monitoring well abandonment, develop soil sampling plan for the remainder of the BN site (60 acres), and develop a soil sampling plan in the vicinity of monitoring well MPCA 14S.
- A schedule for addressing these issues is provided in Section IV.

III. DEMONSTRATION OF QUALITY ASSURANCE/QUALITY CONTROL (A/QC) FROM CLEANUP ACTIVITIES

The remedial design and the construction specifications for the remedial actions were carefully reviewed by the MPCA staff for compliance with all requirements of the RODs, the ESD, and applicable plan modifications. The QA/QC program utilized throughout the remedial action was sufficient and enabled the State to determine that the testing results reported were accurate to the degree needed to assure satisfactory execution of the remedial action consistent with the RODs and MPCA plan modifications.

IV. ACTIVITIES AND SCHEDULE FOR SITE COMPLETION

As noted in the prefinal inspection, the following construction at the BN site must be completed by the RP before a final inspection is conducted:

- Complete the sweeping of the concrete pad where contaminated sediment was stockpiled and treated.

- Seed two former stockpile areas, one in area H and the other just west of the containment cell. Both areas are on the City's property.

- Develop a work plan to investigate the approximately 60 acres that have not been investigated for lead impacts to the soil by September 15, 1999. Completion of the investigation within 90 days of receiving MPCA approval of the work plan.

- Develop a work plan to investigate the soil in the vicinity of MPCA 14S by September 15, 1999. Completion of the investigation within 90 days of receiving MPCA approval of the work plan.

- Complete monitoring well abandonment by October 31, 1999.

- Complete a Construction Completion Report by December 15, 1999, for the construction completed as required in the ESD.

- Complete all necessary environmental restrictive covenants on the property by June 2000.

- Final Site Close Out Report will be submitted upon achieving cleanup levels in ground water at the Site. This is currently expected to take at least 30 years so we do not expect to receive this report from the RPs until the year 2023, although they may submit it sooner if cleanup levels (MCLs) are reached in ground water.

The EPA can begin deletion of the Site from the NPL upon approval of the Final Site Close Out Report in 2023, or earlier if cleanup levels are reached in ground water.

Five Year Review

Upon completion of this remedy, hazardous substances will remain on site above levels allowing for unlimited use and unrestricted exposure. A Five-Year Review was conducted for the City water wells and the EM site on March 30, 1995. The next Five-Year Review will be conducted for the entire Site in December 1999, pursuant to OSWER Directive 9355.7-02, "Structure and Components of Five-Year Reviews" (May 23, 1991).

Roger Bjork
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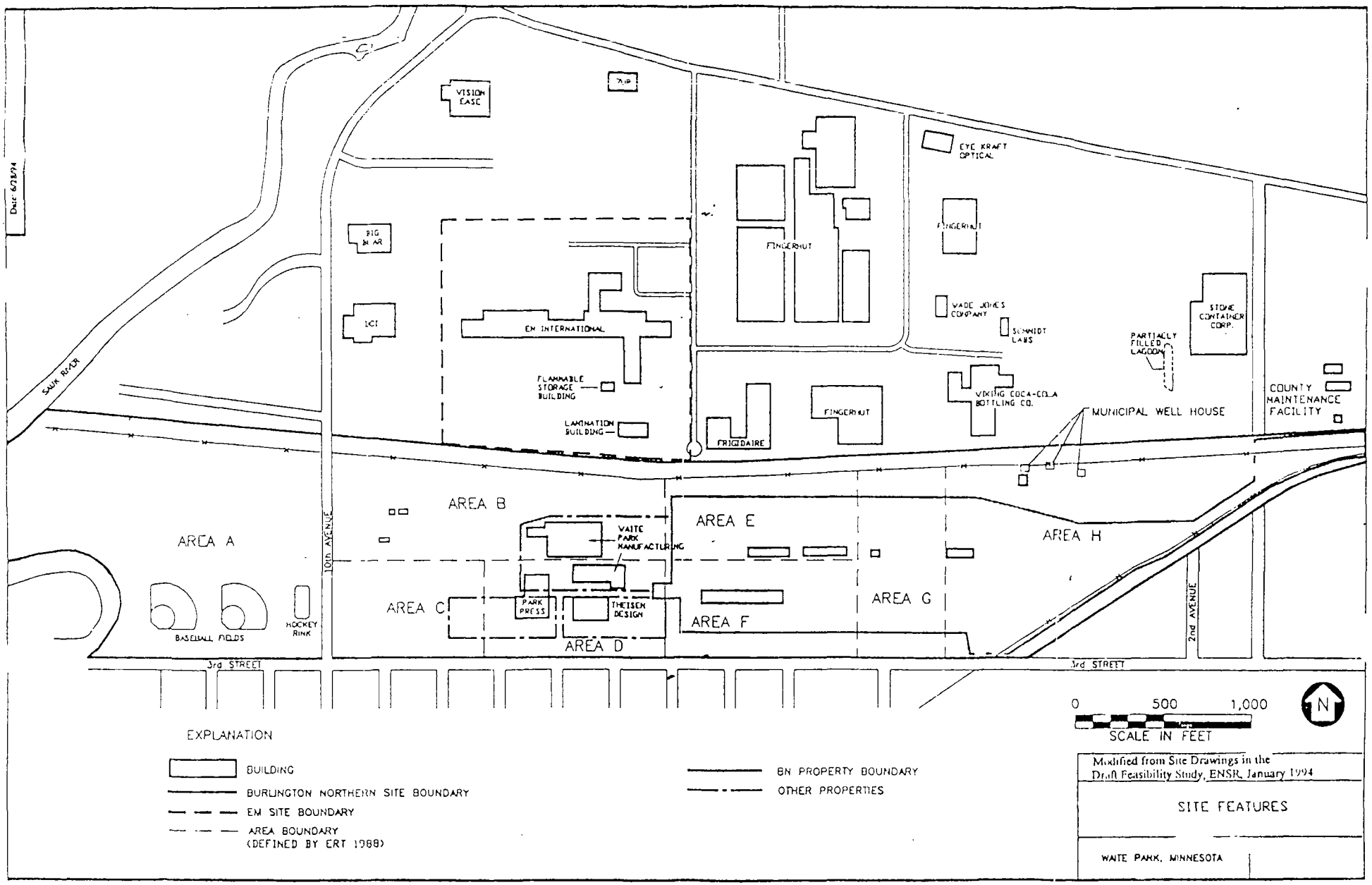
VISION EASE
EYE KRAFT OPTICAL
FINGERHUT
WADE JONES COMPANY
SCHMIDT LABS
STONE CONTAINER CORP.
PARTIALLY FILLED LAGOON
EM INTERNATIONAL
FLAMMABLE STORAGE BUILDING
LAMINATION BUILDING
FRIGIDAIRE
FINGERHUT
VIKING COCA-COLA BOTTLING CO.
MUNICIPAL WELL HOUSE
COUNTY MAINTENANCE FACILITY
SAUK RIVER
AREA A
AREA B
AREA C
AREA D
AREA E
AREA F
AREA G
AREA H
WAITE PARK MANUFACTURING
PARK PRESS
THEISEN DESIGN
BASEBALL FIELDS
HOCKEY RINK
10th AVENUE
2nd AVENUE
3rd STREET
3rd STREET
0
500
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SCALE IN FEET
N
EXPLANATION
BUILDING
BURLINGTON NORTHERN SITE BOUNDARY
EM SITE BOUNDARY
AREA BOUNDARY (DEFINED BY ERT 1988)
BN PROPERTY BOUNDARY
OTHER PROPERTIES
Modified from Site Drawings in the Draft Feasibility Study, ENSR, January 1994
SITE FEATURES
WAITE PARK, MINNESOTA

FIGURE 1

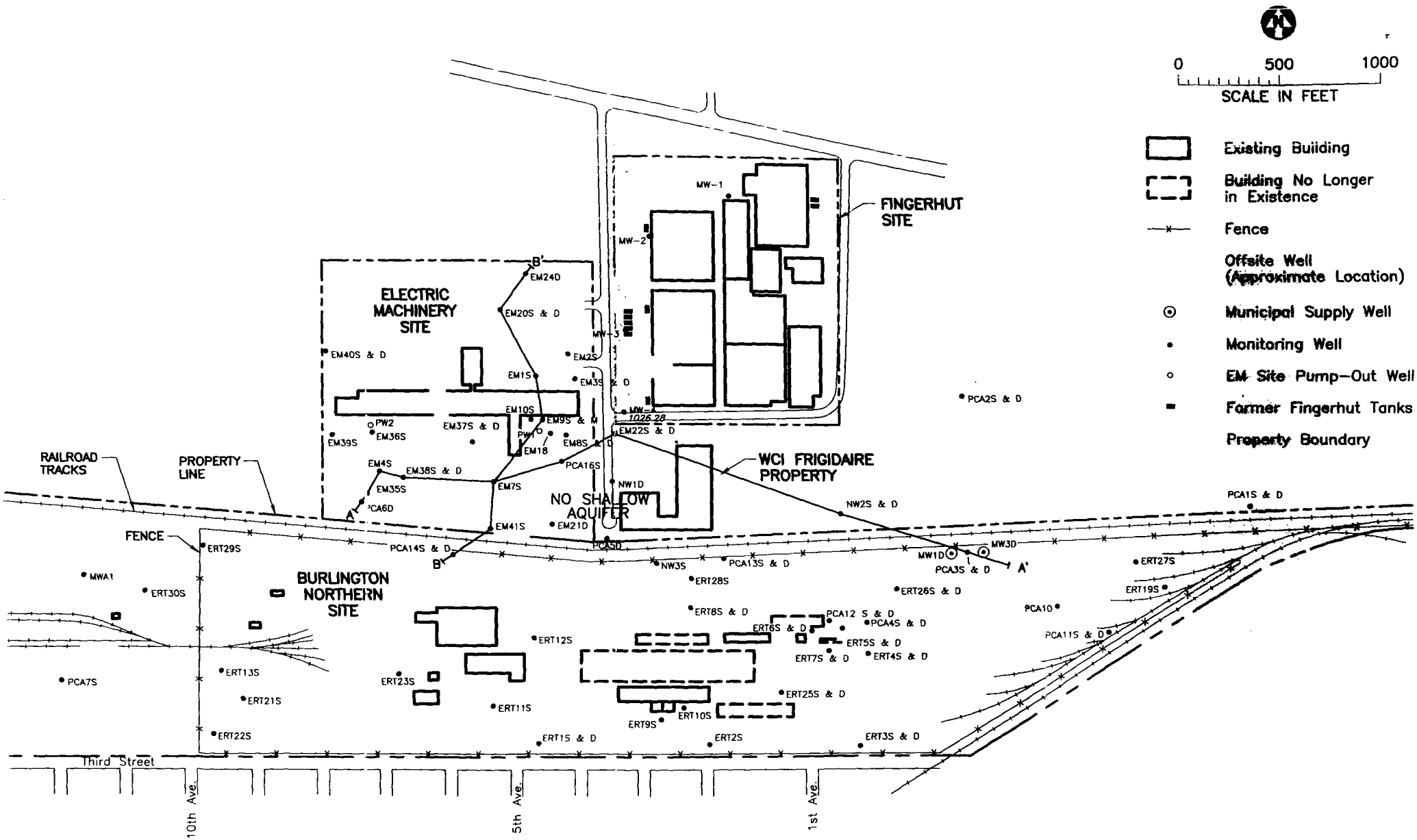

FIGURE 2

EM, BURLINGTON NORTHERN AND FINGERHUT SITE MAP